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Ball Valve with Shear Bushing and Integral Bracket for Stem Blowout Protection

Abstract

A valve 100 comprising a one piece valve body 112 having an axial fluid bore 124 therethrough and a fluid control element 110 rotatable between open and closed positions. The body 112 includes an integral bracket 128 which provides an open access area between the bracket 128 and the main body 112 of the valve 100. A valve stem 130 is disposed within a stem bore 135, and 137 extending from the valve body 112 to the bracket 128, and engaging the flow control element 110. A contiguous single piece gland flange 142 secures packing 134 disposed between a valve body bore 137 and the stem 130. The stem 130 includes an enlarged shoulder 152 which engages a contiguous single piece shear bushing 148 having a diameter greater than the diameter of the stem bore 130, thereby preventing removal and/or blowout of the stem 130 without prior removal of the shear bushing 148.